

Section 1. Registration Information

Source Identification

Facility Name:	Coronado Generating Station
Parent Company #1 Name:	Salt River Project
Parent Company #2 Name:	

Submission and Acceptance

Submission Type:	Re-submission
Subsequent RMP Submission Reason:	Regulated substance present above TQ in new (or previously not covered) process (40 CFR 68.190(b)(4))
Description:	
Receipt Date:	19-Feb-2014
Postmark Date:	19-Feb-2014
Next Due Date:	19-Feb-2019
Completeness Check Date:	19-Feb-2014
Complete RMP:	Yes
De-Registration / Closed Reason:	
De-Registration / Closed Reason Other Text:	
De-Registered / Closed Date:	
De-Registered / Closed Effective Date:	
Certification Received:	Yes

Facility Identification

EPA Facility Identifier:	1000 0000 3426
Other EPA Systems Facility ID:	

Dun and Bradstreet Numbers (DUNS)

Facility DUNS:	9011487
Parent Company #1 DUNS:	9011487
Parent Company #2 DUNS:	

Facility Location Address

Street 1:	7 mi NE of St. Johns,AZ off Hwy 191
Street 2:	
City:	St. Johns
State:	ARIZONA
ZIP:	85936
ZIP4:	
County:	APACHE

Facility Latitude and Longitude

Latitude (decimal):	34.578127
Longitude (decimal):	-109.270892
Lat/Long Method:	Interpolation - Digital map source (TIGER)
Lat/Long Description:	Center of Facility
Horizontal Accuracy Measure:	24.1
Horizontal Reference Datum Name:	World Geodetic System of 1984

Source Map Scale Number:

Owner or Operator

Operator Name:	Salt River Project
Operator Phone:	(928) 337-5501

Mailing Address

Operator Street 1:	P.O. Box 1018
Operator Street 2:	
Operator City:	St. Johns
Operator State:	ARIZONA
Operator ZIP:	85936
Operator ZIP4:	
Operator Foreign State or Province:	
Operator Foreign ZIP:	
Operator Foreign Country:	

Name and title of person or position responsible for Part 68 (RMP) Implementation

RMP Name of Person:	Mark Prein
RMP Title of Person or Position:	Sr. Env. Scientist/RMP Manager
RMP E-mail Address:	Mark.Prein@srpnet.com

Emergency Contact

Emergency Contact Name:	Emergency Coordinator
Emergency Contact Title:	On-duty Shift Supervisor
Emergency Contact Phone:	(928) 337-2211
Emergency Contact 24-Hour Phone:	(928) 337-2211
Emergency Contact Ext. or PIN:	
Emergency Contact E-mail Address:	N/A

Other Points of Contact

Facility or Parent Company E-mail Address:	Mark.Prein@srpnet.com
Facility Public Contact Phone:	(928) 337-5526
Facility or Parent Company WWW Homepage Address:	www.srpnet.com

Local Emergency Planning Committee

LEPC:	Apache County LEPC
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Full Time Equivalent Employees

Number of Full Time Employees (FTE) on Site:	209
FTE Claimed as CBI:	

Covered By

OSHA PSM :	Yes
EPCRA 302 :	Yes

CAA Title V:	Yes
Air Operating Permit ID:	52639

OSHA Ranking

OSHA Star or Merit Ranking:

Last Safety Inspection

Last Safety Inspection (By an External Agency) Date:	25-Apr-2012
Last Safety Inspection Performed By an External Agency:	State occupational safety agency

Predictive Filing

Did this RMP involve predictive filing?:

Preparer Information

Preparer Name:	Trinity Consultants
Preparer Phone:	(602) 274-2900
Preparer Street 1:	1661 E. Camelback Road
Preparer Street 2:	Suite 290
Preparer City:	Phoenix
Preparer State:	ARIZONA
Preparer ZIP:	85016
Preparer ZIP4:	
Preparer Foreign State:	
Preparer Foreign Country:	
Preparer Foreign ZIP:	

Confidential Business Information (CBI)

CBI Claimed:
Substantiation Provided:
Unsanitized RMP Provided:

Reportable Accidents

Reportable Accidents:	See Section 6. Accident History below to determine if there were any accidents reported for this RMP.
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Process Chemicals

Process ID:	1000047952
Description:	Anhydrous Ammonia System
Process Chemical ID:	1000058282
Program Level:	Program Level 3 process
Chemical Name:	Ammonia (anhydrous)
CAS Number:	7664-41-7
Quantity (lbs):	560000
CBI Claimed:	
Flammable/Toxic:	Toxic

Process NAICS

Process ID:	1000047952
Process NAICS ID:	1000048375
Program Level:	Program Level 3 process
NAICS Code:	221112
NAICS Description:	Fossil Fuel Electric Power Generation

Section 2. Toxics: Worst Case

Toxic Worst ID: 1000039224

Percent Weight:	99.9
Physical State:	Gas liquified by pressure
Model Used:	SLAB
Release Duration (mins):	10
Wind Speed (m/sec):	1.5
Atmospheric Stability Class:	F
Topography:	Rural

Passive Mitigation Considered

Dikes:
Enclosures:
Berms:
Drains:
Sumps:
Other Type:

Section 3. Toxics: Alternative Release

Toxic Alter ID: 1000041472

Percent Weight:	99.9
Physical State:	Gas liquified by pressure
Model Used:	SLAB
Wind Speed (m/sec):	3.5
Atmospheric Stability Class:	D
Topography:	Rural

Passive Mitigation Considered

Dikes:
Enclosures:
Berms:
Drains:
Sumps:
Other Type:

Active Mitigation Considered

Sprinkler System:
Deluge System:
Water Curtain:
Neutralization:
Excess Flow Valve:
Flares:
Scrubbers:
Emergency Shutdown:
Other Type:

Section 4. Flammables: Worst Case

No records found.

Section 5. Flammables: Alternative Release

No records found.

Section 6. Accident History

No records found.

Section 7. Program Level 3

Description

No description available.

Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID:	1000049669
Chemical Name:	Ammonia (anhydrous)
Flammable/Toxic:	Toxic
CAS Number:	7664-41-7

Prevention Program Level 3 ID:	1000041661
NAICS Code:	221112

Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):	19-Jul-2011
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Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):	20-Jul-2011
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The Technique Used

What If:	Yes
Checklist:	
What If/Checklist:	
HAZOP:	
Failure Mode and Effects Analysis:	
Fault Tree Analysis:	
Other Technique Used:	
PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):	31-Mar-2014

Major Hazards Identified

Toxic Release:	Yes
Fire:	Yes
Explosion:	Yes
Runaway Reaction:	
Polymerization:	
Overpressurization:	Yes
Corrosion:	Yes
Overfilling:	Yes
Contamination:	
Equipment Failure:	Yes
Loss of Cooling, Heating, Electricity, Instrument Air:	Yes
Earthquake:	
Floods (Flood Plain):	

Tornado:
Hurricanes:
Other Major Hazard Identified:

Process Controls in Use

Vents:
Relief Valves: Yes
Check Valves: Yes
Scrubbers:
Flares:
Manual Shutoffs: Yes
Automatic Shutoffs: Yes
Interlocks: Yes
Alarms and Procedures: Yes
Keyed Bypass:
Emergency Air Supply:
Emergency Power:
Backup Pump: Yes
Grounding Equipment: Yes
Inhibitor Addition:
Rupture Disks:
Excess Flow Device: Yes
Quench System:
Purge System: Yes
None:
Other Process Control in Use:

Mitigation Systems in Use

Sprinkler System:
Dikes:
Fire Walls:
Blast Walls:
Deluge System:
Water Curtain:
Enclosure:
Neutralization:
None:
Other Mitigation System in Use: Fogging system

Monitoring/Detection Systems in Use

Process Area Detectors: Yes
Perimeter Monitors:
None:
Other Monitoring/Detection System in Use:

Changes Since Last PHA Update

Reduction in Chemical Inventory:
Increase in Chemical Inventory:
Change Process Parameters:
Installation of Process Controls: Yes
Installation of Process Detection Systems:

Installation of Perimeter Monitoring Systems:

Installation of Mitigation Systems:

None Recommended:

None:

Other Changes Since Last PHA or PHA Update: Updates to safety procedures and programs

Review of Operating Procedures

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures): 18-Feb-2014

Training

Training Revision Date (The date of the most recent review or revision of training programs): 18-Feb-2014

The Type of Training Provided

Classroom:

On the Job:

Other Training: One or more of the following: classroom, one-on-one demonstration, review of written materials, videotape review, and/or computer based training modules

The Type of Competency Testing Used

Written Tests:

Oral Tests:

Demonstration:

Observation:

Other Type of Competency Testing Used: One or more of the following: written test, computer based test, one-on-one discussion, and/or physical demonstration

Maintenance

Maintenance Procedures Revision Date (The date of the most recent review or revision of maintenance procedures): 18-Feb-2014

Equipment Inspection Date (The date of the most recent equipment inspection or test): 18-Feb-2014

Equipment Tested (Equipment most recently inspected or tested): Storage tanks, tanktruck and railcar loading facilities, ammonia pump and injection skids, ammonia vapor lines, ammonia mitigation systems

Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):

Change Management Revision Date (The date of the most recent review or revision of management of change procedures): 18-Feb-2014

Pre-Startup Review

Pre-Startup Review Date (The date of the most recent pre-startup review):

Compliance Audits

Compliance Audit Date (The date of the most recent compliance audit):

Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit):

Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)):

Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):

Employee Participation Plans

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans): 18-Feb-2014

Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most recent review or revision of hot work permit procedures): 18-Feb-2014

Contractor Safety Procedures

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures): 18-Feb-2014

Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance): 18-Feb-2014

Confidential Business Information

CBI Claimed:

Section 8. Program Level 2

Section 9. Emergency Response

Written Emergency Response (ER) Plan

Community Plan (Is facility included in written community emergency response plan?): Yes

Facility Plan (Does facility have its own written emergency response plan?): Yes

Response Actions (Does ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?): Yes

Public Information (Does ER plan include procedures for informing the public and local agencies responding to accidental release?): Yes

Healthcare (Does facility's ER plan include information on emergency health care?): Yes

Emergency Response Review

Review Date (Date of most recent review or update of facility's ER plan): 01-Feb-2014

Emergency Response Training

Training Date (Date of most recent review or update of facility's employees): 31-Dec-2013

Local Agency

Agency Name (Name of local agency with which the facility ER plan or response activities are coordinated): Apache County LEPC

Agency Phone Number (Phone number of local agency with which the facility ER plan or response activities are coordinated): (928) 337-7630

Subject to

OSHA Regulations at 29 CFR 1910.38: Yes

OSHA Regulations at 29 CFR 1910.120: Yes

Clean Water Regulations at 40 CFR 112:

RCRA Regulations at CFR 264, 265, and 279.52:

OPA 90 Regulations at 40 CFR 112, 33 CFR 154, 49 CFR 194, or 30 CFR 254:

State EPCRA Rules or Laws: Yes

Other (Specify): 29 CFR 1910.119

Executive Summary

Executive Summary

The Salt River Project Agricultural Improvement and Power District (SRP) owns and operates the Coronado Generating Station (CGS), a coal fired power plant, located approximately 7 miles northeast of St. Johns, Arizona off Highway 191. The approximate location of SRP CGS is 34°X34'34" North Latitude and 109°X16'18" West Longitude. CGS operates two coal fired units (Unit 1 and 2) which have a combined electrical output of 912 gross megawatts (MW).

In August 2008, the U.S. Environmental Protection Agency (EPA) reached a settlement agreement with SRP which requires CGS to reduce its 2007 emissions of nitrogen oxide (NOx) and sulfur dioxide (SO2) by 21,000 tons per year. To meet these emission reduction requirements, SRP has implemented the Coronado Emissions Control Project (CECP). As part of the CECP, SRP will install a selective catalytic reduction (SCR) system on Unit 2 at CGS.

The SCR system will reduce NOx emissions through the use of anhydrous ammonia which will be stored on site in two 45,000 gallon storage tanks with a maximum storage capacity of approximately 390,000 pounds. This quantity will provide approximately 14 days of anhydrous ammonia supply. Additionally, a 170,000 loaded railcar may be maintained on-site for a period of time making the maximum total on-site quantity approximately 560,000 pounds. Due to the storage of anhydrous ammonia in a quantity greater than the threshold value of 10,000 pounds, SRP is required to meet the Chemical Accident Prevention Provisions contained in Title 40 of the Code of Federal Regulations (40 CFR) Part 68 and the Process Safety Management (PSM) provisions under 29 CFR §1910.119. Through the development and implementation of this Risk Management Plan (RMP), as contained herein, SRP is satisfying all requirements under 40 CFR 68 and 29 CFR §1910.119. This executive summary is prepared in accordance with the requirements of 40 CFR §68.155.

1.1 ACCIDENTAL RELEASE PREVENTION AND EMERGENCY RESPONSE POLICIES

SRP is committed to preventing accidental releases at CGS. Anhydrous ammonia storage and distribution at CGS is covered by an accidental release Program 3 Prevention Program developed and implemented by SRP. In addition, SRP has developed a site emergency response program, which includes, but is not limited to, procedures for response to an accidental release, procedures for informing public and local emergency response agencies, and employee training on emergency procedures.

1.2 STATIONARY SOURCE AND REGULATED SUBSTANCES HANDLED

CGS utilizes anhydrous ammonia in their SCR system for the purpose of reducing NOx emissions. The anhydrous ammonia is a regulated substance under 40 CFR Part 68 and is stored at quantities greater than the RMP threshold of 10,000 pounds.

1.3 GENERAL ACCIDENTAL RELEASE PREVENTION PROGRAM AND CHEMICAL-SPECIFIC PREVENTION STEPS

In accordance with the requirements of the RMP regulations, SRP has implemented a Program 3 Prevention Program for the ammonia system at CGS. This program contains a variety of measures to prevent accidental releases, including, but not limited to, the following:

- Periodic hazard reviews and updates
- Periodic audits of the system and its operation
- Emergency response plan that is coordinated with local emergency response agencies

The anhydrous ammonia system is designed, installed, and maintained in accordance with all applicable regulations. CGS employees responsible for handling anhydrous ammonia are thoroughly trained on safety procedures and operation and maintenance procedures for the anhydrous ammonia system.

1.4 FIVE YEAR ACCIDENT HISTORY

There have been no accidental releases of anhydrous ammonia from the covered process at CGS in the past five years that have resulted in death, injury, or property damage on site, or known offsite impacts (deaths, injuries, evacuations, sheltering-in-place, property damage, or environmental damage).

1.5 EMERGENCY RESPONSE PROGRAM

An emergency response program was developed by SRP in accordance with the requirements of the RMP regulations. The key components of this program include:

- Procedures for reporting an emergency
- Procedures for informing public and local emergency response agencies
- Proper first-aid and emergency medical treatment
- Procedures for safely evacuating the facility
- Procedures for response after an accidental release
- Training for all employees

1.6 PLANNED CHANGES TO IMPROVE SAFETY

A process hazard analysis (PHA) was completed for the anhydrous ammonia system in accordance with the RMP Program 3 Prevention Program requirements. The PHA was performed using the "What If" analysis method. The PHA identified 49 recommendations which, in general, fell into the following categories:

- Training
- Procedures
- Preventative Maintenance
- Physical Design

As required by RMP regulations, the PHA will be updated and revalidated at least every five years (more frequently if needed based on the Management-of-Change process) to update safety measures and implement improvements as needed to ensure the ongoing safe operation of the anhydrous ammonia system at the CGS facility.

1.7 OFFSITE CONSEQUENCE ANALYSIS

The RMP program requires affected facilities to determine offsite impacts resulting from a prescribed worst-case scenario (WCS). Per 40 CFR §68.25, the WCS is defined as the release of the entire volume of anhydrous ammonia from the single largest storage tank or cylinder, over a period of 10 minutes. In addition to the worst-case scenario, offsite impacts must be determined for an alternative case scenario (ACS), which is defined as an incident that is more likely to occur than the worst-case scenario. For CGS, the alternative release scenario is defined as the release of anhydrous ammonia caused by a railcar failure. The following is a summary of the approach used in the offsite consequence analysis:

- The distances to the toxic endpoints for the WCS and ACS were determined using SLAB (an atmospheric dispersion model for denser than air gases)
- Meteorological parameters for the analysis were obtained from National Weather Service data collected at St. Johns Airport for the years 2004, 2005, and 2006
- The offsite impacts were evaluated using LANDVIEW 6 software as well as Mapping Applications for Response, Planning, and Local Operational Tasks (MARPLOT) version 4.2.1.

The results obtained in the offsite consequence analysis performed for the facility are as follows:

- WCS
 - + Toxic Endpoint(mg/m3): 140
 - + Distance to Endpoint (miles): 7.98
 - + Population Within Radius to Endpoint (persons): 3,200
- ACS
 - + Toxic Endpoint(mg/m3): 140
 - + Distance to Endpoint (miles): 2.82
 - + Population Within Radius to Endpoint (persons): 10